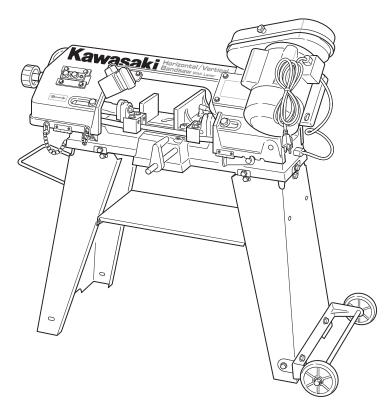
Kawasaki

HORIZONTAL / VERTICAL METAL CUTTING BAND SAW INSTRUCTION MANUAL



THIS MANUAL CONTAINS IMPORTANT INFORMATION REGARDING SAFETY, OPERATION, MAINTENANCE AND STORAGE OF THIS PRODUCT. BEFORE USE, READ CAREFULLY AND UNDERSTAND ALL CAUTIONS, WARNINGS, INSTRUCTIONS AND PRODUCT LABELS. FAILURE TO DO SO COULD RESULT IN SERIOUS PERSONAL INJURY AND/OR PROPERTY DAMAGE.

IF YOU SHOULD HAVE ANY QUESTIONS OR EXPERIENCE A PROBLEM WITH YOUR ALLTRADE PRODUCT, DO NOT RETURN THIS PRODUCT TO THE STORE. PLEASE CALL OUR CUSTOMER SERVICE DEPARTMENT AT **1-800-590-3723**. BEFORE YOU CALL, HAVE THE FOLLOWING INFORMATION AVAILABLE: MODEL No., DATE PURCHASED AND STORE LOCATION. AN ALLTRADE REPRESENTATIVE CAN RESOLVE YOUR PROBLEM OVER THE PHONE. IF YOU WOULD LIKE TO MAKE A SUGGESTION OR COMMENT, GIVE US A CALL OR EMAIL US AT: INFO@ALLTRADETOOLS.COM. YOUR FEEDBACK IS VITAL TO US.

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OU DU CONSOMMATEUR
PARA EL SERVICIO
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©COPYRIGHT 2006 ALLTRADE TOOLS, LLC. 1431 VIA PLATA LONG BEACH, CA 90810-1462 USA 840076 – Horizontal/Vertical Metal Cutting Band saw - Rev.9/26/06

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CONGRATULATIONS!

Thanks for choosing this product. At Alltrade, our aim is to provide you with quality products at an affordable price, and we want you to be totally satisfied with your product and our Customer Service. If any help and advice is needed, please contact us at 1-800-590-3723. Properly cared for, this product will give you many years of satisfaction.

INTENDED USE

This product is intended for consumer use only. This tool is not designed for professional use. The power cord should only be used in approved electrical outlets as described in this manual. Failure to use the proper power cords and/or extension cords may result in fire or possible damage to the band saw.

RECOGNIZE SAFETY SYMBOLS. WORDS AND LABELS

▲ WARNING

READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to

follow all instructions in this manual may result severe personal injury or death. Keep this manual and refer to it for Safety Instructions, Operating Procedures and Warranty.

The safety instructions provided in this manual are not intended to cover all possible conditions and practices that may occur when operating, maintaining and cleaning power tools.

Always use common sense and pay particular attention to all the **DANGER**, **WARNING**, **CAUTION** and **NOTE** statements of this manual.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

A DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

▲ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

▲ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

NOTE provides additional information that is useful for proper use and maintenance of this tool. If a NOTE is indicated make sure it is fully understood.

IMPORTANT SAFEGUARDS

A DANGER

People with electronic devices, such as pacemakers, should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

WARNING: Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products, and arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

WARNING: Handling the power cord on corded products may expose you to lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. *Wash hands after handling.*

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

▲ WARNING

READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

KEEP GUARDS IN PLACE AND IN WORKING ORDER.

REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

DO NOT USE TOOL IN A DANGEROUS ENVIRONMENT. Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lit.

KEEP CHILDREN AWAY. All visitors should be kept a safe distance from the work area.

MAKE YOUR WORKSHOP CHILD PROOF, WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.

DO NOT FORCE TOOL. The correct tool will do the job better and safer at the rate for which it is designed.

USE THE CORRECT TOOL FOR YOUR APPLICATION. Do not force tool or attachment to do a job for which it was not designed.

ALWAYS USE SAFETY GLASSES. Also use a face mask or dusk mask if cutting operation is dusty. Everyday eyeglasses only have impact lenses, they are **NOT** safety glasses.

SECURE WORK. Use clamps or other practical ways to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.

DO NOT OVERREACH. Keep proper footing and balance at all times. Proper footing and balance enables better control of the power tool in unexpected situations.

MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

DISCONNECT TOOLS BEFORE SERVICING AND WHEN CHANGING ACCESSORIES, SUCH AS BLADES, BITS, CUTTERS AND THE LIKE.

REDUCE THE RISK OF UNINTENTIONAL STARTING. Be sure switch is in the "OFF" position before plugging in.

▲ WARNING

USE RECOMMENDED ACCESSORIES. Consult the owners manual for recommended accessories. The use of improper accessories may cause cause risk of injury.

NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.

CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

DIRECTION OF FEED. Only feed work into a blade or cutter against the direction of rotation of the blade or cutter.

GROUNDING INSTRUCTIONS

MARNING NEVER use appliances or equipment that has motors with automatic reset overload protective devices. These protective devices can cause unexpected startups that can cause property damage, severe personal injury, or death.

The electrical power source for this band saw **MUST** be grounded in order prevent possible electric shock or even death should the tool malfunction or breakdown. Grounding provides a path of least resistance for electric current thus reducing the risk of electrical shock. **The power source must also use a minimum 20A service** and not used if other power tools on the same circuit are in use.

▲ WARNING Failure to properly ground this metal cutting band saw could result in burns, severe electrical shock, and even death. This is especially true if used in damp or wet locations or near metallic plumbing. The reaction from electrical shock could possibly cause your hands to make contact with the cutting tools.

A CAUTION Not all outlets are properly grounded, regardless of the type of receptacle they have. If you are not sure if the receptacle is properly grounded or not, consult a certified electrician. The AC receptacle must be protected by a dual element time delay or a circuit breaker.

This metal cutting band saw is equipped with a grounded 3-wire power cord with a 3-prong plug. If the power cord will not fit into the wall plug, an approved adapter can be used as long as it is connected to the center screw in the wall plate. Never modify the electrical plug by cutting off the grounding prong so it will fit into unapproved, un-grounded electrical receptacles. See Figure 1 and the steps below to use an AC grounding adapter:

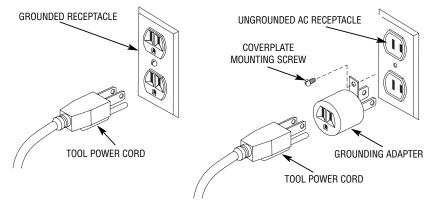


FIGURE 1. CONNECTING THE BAND SAW TO THE AC POWER RECEPTACLE

- 1. Remove the cover plate mounting screw.
- 2. Insert the AC grounding adapter into the bottom receptacle so the green grounding lug fits over the screw hole.
- 3. Install the mounting screw back into the cover plate securely attaching the adapter to the receptacle.

If you have questions about hooking up the band saw, contact a certified electrical contractor to install the proper circuitry acceptable for this and other power tools you use. Repair or replace any damaged electrical wiring **IMMEDIATELY**.

EXTENSION CORD USAGE

Extension cords are not recommended for use with this band saw. Extension cords, if used, must be properly grounded with a 3-prong plug on one and a 3-hole receptacle on the other. **DO NOT use grounding adapters with an extension cord.** Extension cords must be UL listed and use a minimum of 18 A.W.G. wiring. Extension cords should never exceed 25 feet in length. Extension cords, that are too long, cause a voltage drop over the extra distance causing the band saw motor to run slower with the possibility of causing damage to the motor. Using extension cords with smaller than the recommended wire gauge run the risk of getting too hot, melting, and/or causing fires. See table, "**Extension Cord Specifications**", on page 31-32.

A substantial voltage drop can occur when using an extension cord. This voltage drop will cause a loss of power and possibly saw overheating. Overheating of the motor due to extension cords and multiple tools operating from the same receptacle are the primary causes of power loss for the metal cutting band saw.

A WARNINGDo not use the metal cutting band saw if the power cord (or extension cord, if used) is worn, cut, or damaged in any other way. A worn or damaged power cord must be replaced immediately. Contact Alltrade Customer Service to obtain the proper replacement power cord. Failure to adhere to this warning could result in damage to the metal cutting band saw motor, fire, or severe electrical shock or even death to the operator.

IMPORTANT SAFETY RULES FOR METAL CUTTING BAND SAWS

▲ WARNING

AVOID PROLONGED CONTACT WITH DUST CREATED BY THE HORIZONTAL BAND SAW. Allowing the dust to get into your mouth, eyes, or lay on your skin promotes the absorption of harmful chemicals into your body.

READ AND UNDERSTAND ALL INSTRUCTIONS. If there are instructions in this manual that are not completely understood, seek the advice of a trained professional or contact Alltrade Customer Service at 1-800-590-3723 before attempting to perform the procedures. Failure to follow all instructions listed in this manual may result in property damage, damage to the tool, or serious personal injury or even death.

UNPACK THE HORIZONTAL BAND SAW COMPLETELY FROM ITS CARTON. Inspect the saw and accessories and ensure they are free from defects or breakage due to shipping.

DO NOT OPERATE THIS HORIZONTAL BAND SAW until it is completely assembled according to the instructions in this manual. Failure to adhere to these instructions could result in serious and/or permanent injury to the operator.

MAKE SURE APPROVED EYE PROTECTION IS BEING WORN and properly adjusted and secured at all times the horizontal band saw is in use. Everyday eyeglasses only have impact resistant lenses and ARE NOT safety glasses. Safety glasses must conform to ANSI Z87.1 requirements. Approved safety glasses and goggles will have Z87 printed or stamped on them.

FOLLOW ALL WIRING CODES. Use only properly grounded three-hole grounded receptacles. DO NOT cut the third prong off the power cord. When using an extension cord, use only UL Listed extension cords with minimum 16 AWG wiring and a maximum length of 25 feet. See ELECTRICAL SAFETY section in this manual.

▲ WARNING

KEEP BYSTANDERS, CHILDREN, AND VISITORS at a safe distance from the horizontal band saw while it is in operation. Distractions can cause inadvertent misuse resulting in possible injury to the bystanders or to the operator.

WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other apparel that could possibly become caught in the moving parts of the horizontal band saw. When working in a shop environment around power tools, wear nonslip footwear. Use protective hair covering to contain long hair.

KEEP THE WORK AREA CLEAN AT ALL TIMES. Cluttered areas around the horizontal band saw can cause unexpected accidents if the debris comes in contact with the moving parts of the Horizontal band saw.

MAINTAIN A PROPER WORK ENVIRONMENT. Do not operate the horizontal band saw in damp or wet locations or expose it to rain. Water can cause the electrical components to malfunction resulting in damage to the Horizontal band saw and/or serious injury or death to the operator.

ALWAYS USE APPROVED TABLE CLAMPS AND VICES to clamp workpieces to the horizontal band saw table to prevent breakage, damage to the tool, the workpiece, and possible severe injury to the operator. Contact Alltrade Customer Service at 1-800-590-3723 (toll free) for authorized accessories.

USE ONLY METAL CUTTING BAND SAW BLADES that were designed for this tool. Unsuitable blades can break without warning throwing fragments outward at high speeds possibly causing severe injuries.

DO NOT FORCE THE TOOL. The horizontal band saw will do a better job and be safer if cutting operations are performed at the proper speeds as expressed in this manual.

ALWAYS EASE THE BAND SAW BLADE AGAINST THE WORKPIECE when starting a cutting operation.

DO NOT USE THE BAND SAW IF THE BLADE VIBRATES. Visually inspect the blade wheels to ensure the blade is properly positioned in the guides. If the vibration still exists, check the bearings and the motor shaft and repair or replace them as soon as possible. EXCESSIVE VIBRATION can cause severe damage to both the workpiece and the horizontal band saw. DISCONNECT AC POWER BEFORE ANY ADJUSTMENTS TO THE BLADE ARE MADE.

▲ WARNING

ADJUST THE TOOL TABLE BEFORE EACH USE. The tool table should be tightened and placed at the proper angle for the cutting job before the horizontal band saw is put into use. If not properly adjusted, the workpiece can unexpectedly move causing the abrasive wheel to seize resulting in damage to it or possible severe injury to the operator.

PROPERLY SUPPORT EXTRA LONG OR EXTRA WIDE WORKPIECES. Workpieces that are too long or tool wide can tip and cause the band saw blade to seize resulting in a sudden kick back motion resulting in damage to the workpiece and horizontal band saw as well as possible severe injury to the operator.

NEVER START THE HORIZONTAL BAND SAW WITH THE WORKPIECE IN CONTACT WITH THE BAND SAW BLADE. The sudden start-up of the band saw blade could cause it to break resulting in pieces flying away from the horizontal band saw resulting in damage the workpiece, the horizontal band saw, and/or serious injury to the operator.

DISCONNECT THE HORIZONTAL BAND SAW POWER CORD FROM THE AC OUTLET before making adjustments to the worktable, clamps, vises or work-pieces to prevent the tool from accidentally turning on. Failure to adhere to this step could result in damage to the workpiece and the horizontal band saw as well as possible severe injury to the operator.

THOROUGHLY CLEAN THE HORIZONTAL BAND SAW BEFORE CHANGING TYPES OF WORKPIECES. CONSULT EXPERT ADVICE BEFORE CUTTING IN WORKPIECES MADE OF MAGNESIUM. The friction generated by the band saw blade could the magnesium to ignite resulting in a very intense fire that could cause severe burns to the operator and/or seriously damage the horizontal band saw.

MAGNESIUM FIRES CANNOT BE EXTINGUISHED USING FIRE EXTINGUISHER WITH AN "A", "B" OR "C" RATING. ONLY A CLASS "D" EXTINGUISHER (FOR FLAMMABLE METALS) SHOULD BE USED. Do not attempt to extinguish a magnesium fire with water or other liquid. The result will be an explosive reaction that could result in severe burns or death to the operator.

NEVER PERFORM CUTTING OPERATIONS NEAR FLAMMABLE GAS OR LIQ-UIDS. The resulting fire and/or explosion could cause permanent serious injuries to the operator and damage to the horizontal band saw and surrounding work area.

ALWAYS KEEP ARMS, HANDS, AND FINGERS away from the workpiece while it is on the table and the horizontal band saw is turned on. Severe injury could result.

▲ WARNING

EXTREME CARE SHOULD BE TAKEN WHEN THE BAND SAW IS IN THE VERTI- CAL POSITION. It is important to keep hands away from the moving blade both above and below the work table. A sudden slip could bring hands in contact with the moving blade possibly resulting in severe injuries to the operator.

ALWAYS CLAMP THE WORKPIECE FIRMLY AGAINST THE WORK TABLE. Never attempt to hold the workpiece by hand. The band saw blade can seize in the workpiece resulting in loss of control of the workpiece possibly causing severe injuries to the operator and/or damage to the workpiece and horizontal band saw.

KEEP THE BELT GUARD AND BLADE COVER IN PLACE. It is very important that these covers be in place and in proper working condition when the band saw is being used.

REDUCE THE RISK OF UNINTENTIONAL STARTING. Ensure the "ON/OFF" switch is set to the "OFF" position before plugging the power cord into the AC outlet.

TURN THE ON/OFF SWITCH ON THE HORIZONTAL BAND SAW TO THE "OFF" POSITION AND UNPLUG THE POWER CORD FROM THE ELECTRICAL RECEPTACLE when the cutting operations are finished. Thoroughly clean the area surrounding the horizontal band saw making it ready for the next use.

NEVER LEAVE THE HORIZONTAL BAND SAW RUNNING UNATTENDED. WHEN FINISHED WITH A CUTTING OPERATION, TURN "OFF" THE HORIZONTAL BAND SAW AND WAIT UNTIL IT COMES TO A COMPLETE STOP.

SECURE THE ELECTRICAL POWER CORD WHEN THE HORIZONTAL BAND SAW IS NOT IN USE to prevent unauthorized use of the tool and/or to prevent children from accidentally turning it on. Department of Labor OSHA 1910.213 Regulations.

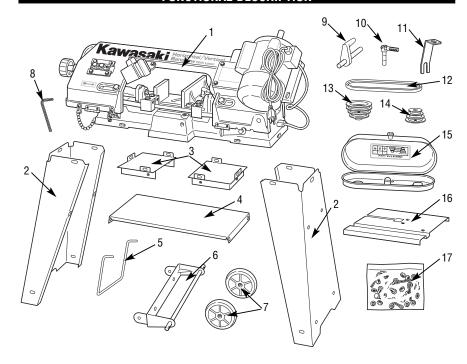
ADDITIONAL INFORMATION about the proper use of metal cutting band saws is available from the Power Tool Institute; 1300 Sumner Avenue, Cleveland, OH 44115-2851 or at the following website, www.powertoolinstitute.com. Information is also available from the National Safety Council; 1121 Spring Lake Drive, Itasca, IL 60143-3201. Additionally, you can refer to the U.S. Department of Labor Occupational Safety and Health Act (OSHA) 1910.213 Regulations.

SYMBOLS

IMPORTANT: Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	EXPLANATION
V	Volts	Voltage (Potential)
Α	Amperes	Current
Hz	Hertz	Frequency (Cycles per Second)
W	Watt	Power
Kg	Kilograms	Weight
\sim	Alternating Current	Type of Current
	Direct Current	Type of Current
\sim	Alternating or Direct Current	Type of Current
⊕	Earthing Terminal	Grounding Terminal
	Class II Construction	Denotes Double Insulation
min	Minutes	Time
S	Seconds	Time
ф	Diameter	Size of Drill Bits,
		Grinding Wheels, etc.
n_{0}	No load speed	No-load Rotational Speed
/min	Revolutions per Minute	Revolutions, Surface Speed,
		Strokes, etc. per Minute
1,2,3,	Ring Selector Settings	Speed, Torque or Position Settings

FUNCTIONAL DESCRIPTION



CONTROLS AND COMPONENTS:

- 1. Band Saw Assembly
- 2. Legs (2 pcs)
- 3. Connecting Plate (2 pcs)
- 4. Tray
- 5. Floor Stand Handle
- 6. Axel Assembly
- 7. Wheel (2 pcs)
- 8. Hex Wrench
- 9. Stock Stop Assembly

- 10. Vise Adjusting Handle
- 11. Table Support Bracket
- 12. Belt
- 13. Bandsaw Pulley
- 14. Motor Pulley
- 15. Belt/Pulley Housing
- 16. Vertical Saw Table
- 17. Hardware Bag

ASSEMBLY

The KAWASAKITM Horizontal/Vertical Metal Cutting Band saw requires very little assembly. The band saw head and motor assemblies are assembled and adjusted at the factory. The assembly includes attaching the stand legs to the band saw base and attaching the adjustment wheels to their proper spindles.

Before beginning the assembly, carefully unpack the band saw and all included parts and accessories. Visually inspect all items for damage. Should anything be broken or bent, DO NOT attempt to assemble the band saw. Contact Alltrade Customer Service at 1-800-590-3723 (toll free) IMMEDIATELY for replacement parts.

WARNINGDO NOT connect the band saw to the AC power source until tool is completely assembled and adjusted per instructions in this manual.

ATTACHING THE LEGS TO THE BAND SAW BASE

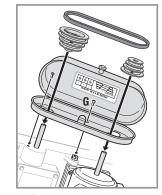
Attaching the legs to the metal cutting band saw also includes attaching the wheel assembly and the floor stand handle.

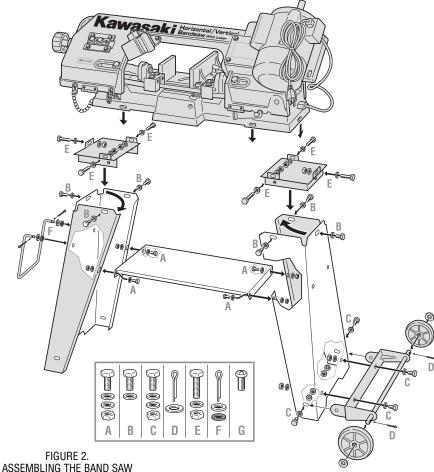
CAUTION The metal cutting band saw weighs \pm 60 lbs (\pm 27 kg). The band saw and base unit will need to be positioned on its side for various assembly procedures. It is recommended that two people be used to position the band saw for these assemblies.

Proceed with the following steps to assemble the legs, wheels and floor stand handle. See Figure 2.

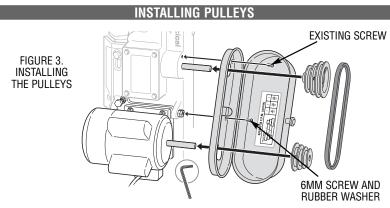
- 1. Place a large piece of cardboard or other protective material on the floor so the band saw will not be damaged during assembly.
- 2. Using two people, carefully place the band saw and base unit so that it rest on the bow assembly and the motor assembly.
- 3. Place one of the metal legs in the inside corner and align the two holes. NOTE: There are two legs with mounting holes several inches below the holes that attach the legs to the base. The legs should be on the opposite end of the base from where the motor is mounted (the front of the band saw). The remaining tow legs have holes near the bottom. These legs mount under the end where the motor is mounted (the rear of the band saw).
- 4. Insert a 1/4" X 20 X 1 1/4" hex head screw through each of the two holes in the base and through the holes in the leg.
- 5. Insert a washer on the screw followed by a 1/4" X 20 hex nut. Finger-tighten the screws at this time. Do not use any tools.

- 6. Repeat this step for the remaining three legs.
- 7. Position the floor stand handle in the holes on the front legs. Adjust the legs slightly so the handle will fit.
- 8. Using two 1/2" (12 mm) box-end wrenches, place one on the hex nut on the inside of the attached leg and one on the outside hex screw head. Holding the hex nut in place, securely tighten the four screws attaching the front legs.





- 9. Position the wheel assembly so the holes in the two rear legs align. Insert a 1/4" X 20 X 3/4" hex head screw into the wheel cross-member followed by a split-lock washer. On the inside of the leg, place a washer and a 1/4" X 20 hex nut. Finger-tighten the screw at this time. Repeat this step for the other side.
- 10.Using two 1/2" (12 mm) box-end wrenches, place one on the hex nut on the inside of the attached leg and one on the outside hex screw head. Holding the hex nut in place, securely tighten the two screws attaching the wheel assembly to the rear legs.
- 11. Using two people, carefully pick up the metal cutting band saw and set it on its legs.
- 12.To move the saw to different positions, lift up on the floor stand handle (See Step 7) allowing the band saw to roll on the wheels attached to the rear legs.

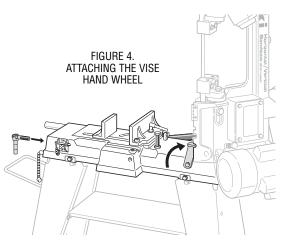


- 1. Remove the existing screw from the band saw.
- Position the belt housing as shown and secure to the band saw using the screw from the previous step and a 6MM pan head phillips screw and a rubber washer from the hardware kit.
- 3. Insert the pulleys into the shafts as shown and tighten set screws.
- 4. Install the belt over the pulleys.

ATTACHING THE VISE HAND WHEEL

The vise hand wheel permits the tightening and holding of material to be cut by the metal cutting band saw. Refer to the following steps and Figure 4 to install the hand wheel.

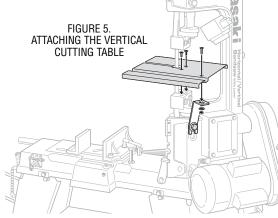
- 1. Set the metal cutting band saw upright on the leg set.
- 2. Slide the vise hand wheel onto the vise adjusting shaft on the front end of the band saw base.
- 3. Securely tighten the setscrew on the hand wheel locking it on the shaft.
- 4. Ensure the setscrew is tightened against the flat part of the adjusting rod.



ATTACHING THE VERTICAL CUTTING TABLE

There will be times when the metal cutting band saw will need to be used in the vertical position. Use the following steps to attach the vertical cutting table. See Figure 5.

- Raise the band saw arm to the vertical position and secure with the locking lever.
- 2. Loosen the hex bolt on the side of the band saw bow assembly.
- 3. Slide the vertical table bracket beneath the loosened hex bolt.
- 4. Securely tighten the hex bolt locking the vertical table bracket in place.



- 5. Remove the two flathead screws and bearing plate.
- 6. Position the vertical table so the holes align with the two holes on the bear plate and the single hole on the vertical table bracket.
- 7. Insert the two flat-head screws back into the bearing assembly.
- 8. Insert an additional flat-head screw (from loose parts) through the table and the vertical table bracket. Place a lock washer on the screw and tighten with a hex nut.
- 9. Securely tighten all three screws ensuring the vertical table is locked in place.

CAUTION Check to ensure there are no parts of the flat-head screws raised above the vertical table work surface. Edges of the screws protruding above the work surface could damage workpieces or cause irregular cuts.

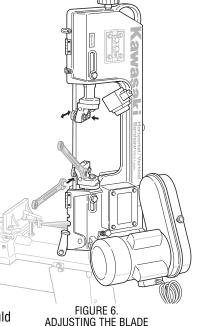
BLADE GUIDE BEARING ADJUSTMENT

The proper alignment of the blade guide bearings is the most important adjustment on the metal cutting band saw. The blade guide bearings are adjusted and tested before the band saw leaves the factory. The need for further adjustment will be unnecessary if the band saw is used and maintained properly. Should the blade guide bearing get out of adjustment, it is important they be re-adjusted immediately. If the blade guide bearings are out of adjustment, the blade will not cut straight. If the problem is not immediately corrected, damage to the blade will occur.

Blade guide bearing adjustment is a critical adjustment to the metal cutting band saw. Before attempting to correct the blade guide bearing adjustment, try installing a new band saw blade. This could correct the poor performance. If a new blade becomes dull on one side sooner than the other, it will start cutting crooked. Simply changing the blade should correct this problem whereas the more difficult blade guide bearing adjustment will not.

If a new blade does not correct the cutting problem, check the blade guides for proper spacing. See Figure 6.

- 1. Ensure there is 0.001" clearance between the 0.025" blade thickness and the guide bearings.
- 2. The inner guide bearing is fixed and cannot be adjusted.
- 3. The outer guide bearing is mounted to an eccentric bolt and can be adjusted.
- 4. Loosen the nut while holding the bolt with a wrench.
- 5. Position the eccentric bolt by turning it to the desired clearance. Check this clearance with a thickness gauge.
- 6. Securely tighten the nut.
- 7. Repeat steps 4 through 6 to adjust the second blade guide bearing.
- 8. The back edge of the band saw blade should just barely touch the guide bearing.



GUIDE BEARING

BLADE GUIDE ASSEMBLY ADJUSTMENT

The metal cutting band saw is equipped with two adjustable blade guide assemblies permitting the adjustment of blade guide position for various widths of workpieces.

To ensure the most accurate cut and prolonging the life of the blade, the blade guide assemblies should be adjusted to just clear the workpiece being cut.

- 1. Place the workpiece in the vise and securely clamp in place.
- 2. Adjust the catch blade guide assembly by loosening the hand knobs and positioning the guides as needed.
- 3. Securely tighten the hand knobs.

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Pigure 7.
ADJUSTING THE BLADE
GUIDE ASSEMBLY

BLADE TENSION ADJUSTMEN

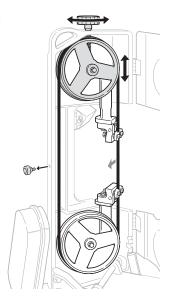
In order for the metal cutting band saw to cut effectively, the proper tension must be put on the blade. If the tension is too loose, the blade may bind and possibly break. If the blade tension is too tight, the blade could damage to the blade guide bearings and possibly break.

WARNING DO NOT connect the band saw to the AC power source until tool is completely assembled and adjusted per instructions in this manual.

To set the blade tension, proceed with the following steps. See Figure 8.

- 1. Press the blade lightly with the left hand.
- 2. Make sure the rear portion of the blade is against the flange of the blade wheel.
- 3. Test the blade tension. The blade should press inward approximately 0.04" (1mm).
- 4. While pressing on the blade with the left hand, turn the blade tension adjustment knob until the proper blade tension is achieved.

FIGURE 8. ADJUSTING THE BLADE TENSION



ADJUSTING BLADE TRACKING

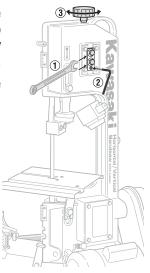
The blade tracking has been set and tested at the factory. The adjustment of the blade tracking is relatively rare if the band saw is used correctly and properly maintained.

Should the blade tracking go out of adjustment, the blade will leave the wheel and cause severe damage to the band saw. If the blade breaks, damage to band saw and possible several injuries to the operator could occur.

The following steps should be used to adjust the blade tracking. See Figure 9 and 10.

1. Turn adjustment knob on front end of band saw simultaneously adjusting the setscrew making the blade track properly against the shoulder of the pulley.

FIGURE 9. ADJUSTING THE BLADE TRACKING



INCREASE BLADE TENSION

- Loosen the hex head screw BEFORE adjusting the setscrew.
- 3. Turn the setscrew simultaneously with the adjustment knob making the blade track properly against the shoulder of the pulley.
- 4. After adjusting the setscrew, tighten the hex head screw.

DECREASE BLADE TENSION

- Set the adjustable blade seat according to material size. The arrow on the front side of the band saw indicates the direction of blade movement.
- 6. Adjust the guide assembly so the blade just barely touches the back-up bearing.

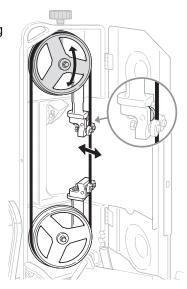


FIGURE 10.
ADJUSTING THE BLADE TRACKING CONT.

CHANGING BLADE SPEED

Turn the metal cutting band saw power switch to the OFF position. Disconnect the band saw from the AC power source before make any adjustments or changing blade speed.

Whenever using the metal cutting band saw, the blade speed should be changed to match the material that is being cut. Refer to Table 1, Metal Cutting Speeds.

- 1. Open the pulley guard cover. See Figure 11.
- 2. Loosen the adjustment screw on the motor mounting plate.

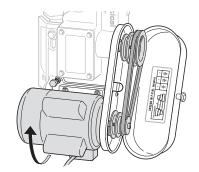
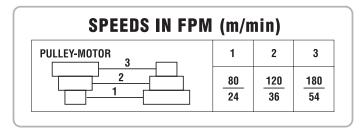


FIGURE 11. CHANGING THE BLADE SPEED

- 3. Pivot the mounting plate towards the front of the band saw until the drive belt can be easily removed from the pulley.
- 4. Using the "Speeds in FPM" table, adjust the belt for the speed needed to cut the material desired.



The use of the metal cutting band saw should be limited to the following materials.

- Tool steel, stainless steel or alloy steel
- · Bearing bronze or mild steel
- · Hard brass or bronze
- · Soft brass, aluminum or other light materials

BAND SAW BLADE SELECTION

Special attention should be given as to the type of band saw blade used with the metal cutting band saw.

- 1. One 1/2" X 0.025" X 641/2 min X 651/2 max X 14 tooth per inch blade is furnished with the band saw from the factory. Additional blades should be the same dimensions but can be either 10 or 14 teeth per inch.
- 2. Blade pitch or number of teeth per inch should be determined by the material being cut. The thinner the material being cut, the more teeth per inch is advisable and vice versa. There should always be a minimum of 3 teeth in the workpiece at all times for proper cutting.
- 3. If the teeth on the blade straddle the material being cut, severe damage to the workpiece and premature dulling can occur to the blade.

LASER GUIDE

CAUTION Use of controls or procedures, or performance of procedures other then those specified herein may result in hazardous radiation exposure.

LASER SAFETY

▲ WARNING

NEVER LOOK INTO THE LASER BEAM. Any contact with the eyes by the beam could cause injury. Do not use the laser when cutting reflective materials.

DO NOT AIM THE LASER BEAM AT ANYONE OR AT REFLECTIVE SURFACES. CLASS 2M LASER PRODUCT. Any contact with the eyes by the beam could cause injury. Ensure the laser beam is turned on only when the tool is on a non-reflective workpiece and as such it is aimed only at the work surface. Metals and other materials like steel which can be highly reflective should only be cut without the use of the laser.

STORE OUT OF REACH OF CHILDREN. Equipment should be in a high location or locked up to keep out of reach of children. It is not a toy.

DO NOT TAMPER WITH THE LASER OUTPUT. Changing the performance of the laser to increase its output is prohibited. Any claim for damages or injuries resulting from not following these instructions will be refused.

OPERATION ACCESSIBLE FIELDS:

Wavelength 636-660nm Laser Power for Classification <1mW CW

NEVER OPERATE LASER IF THE UNIT IS DEFECTIVE OR THE COVER OR SEAL IS DAMAGED.

DO NOT SERVICE LASER. The laser unit must be returned to the factory for any service or repair. Service or repair must be handled by authorized factory trained technicians.

Do not open the laser unit except to change batteries.

REMOVE BATTERIES IF THE LEVEL IS TO BE STORED FOR ANY LENGTH OF TIME. Batteries may leak and damage the laser if it is stored idle for more than 3 months.

Be careful with this tool. Striking or jarring it, especially on the laser housing, can affect its accuracy.

Other than batteries, there are no user-serviceable parts in the laser device.



LASER RADIATION CAUTION LABEL

OPERATING THE LASER

MARNINGDo not stare directly into the Laser beam, aperture or into a reflection from a mirror-like surface.

The laser runs on two AAA batteries which are located beneath the "**ON/OFF**" switch. When the laser light begins to dim, change both batteries. NEVER mix old batteries with new.

TO CHANGE LASER BATTERIES:

- 1. Open battery compartment cover.
- 2. Make sure batteries are correctly positioned according to the positive/negative markings on the compartment.
- 3. Close cover.

USING THE LASER LIGHT:

- 1. Place the workpiece on the table.
- 2. Turn the laser switch to the ON position.
- 3. Lower the band saw to meet the workpiece. The two laser lines should cross where the band saw meets the workpiece.
- 4. If the band saw needs to be adjusted:
 - Using a 3mm hex key, turn the laser adjustment set keys counter-clockwise.
 - Rotate the laser light housing until the two laser lines intersect where the band saw meets the workpiece.

DO NOT stare directly at the laser lines.

5. Re-tighten the adjustment set screws.

OPERATING THE METAL CUTTING BAND SAW

The KawasakiTM Metal Cutting Band saw can be operated in two modes: horizontal cutting and vertical cutting. The horizontal cutting is for larger or thicker workpieces while the vertical cutting table is generally used for smaller lightweight workpieces or workpieces requiring bevel cuts.

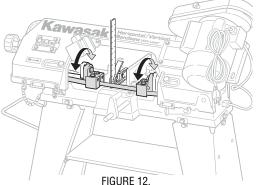
See Pages 20-21, step 4 and the "Speeds in FPM" table for choosing the proper speed and materials for the metal cutting band saw.

ADJUSTING THE BLADE

WARNINGTurn the metal cutting band saw power switch to the OFF position. Disconnect the band saw from the AC power source before make any adjustments or changing blade speed.

The band saw blade must be perpendicular (or 90 degrees) to the workpiece. See Figure 12.

- 1. Lower the band saw head to the horizontal position.
- Loosen the hex head screw on the back side of the blade adjustable seat.
- 3. Place a square on the saw base and against the blade.
- 4. Rotate the blade adjustable seat to the left or right until the blade is flush with the square.
- 5. Tighten the hex head screw on the blade adjustable seat.



ADJUSTING THE BLADE

- 6. Loosen the hex head screw on top of the saw head for both blade guides.
- 7. Move the blade guides as close to the work piece as possible.
- 8. Tighten the hex head screws on top of the saw head.

HORIZONTAL CUTTING

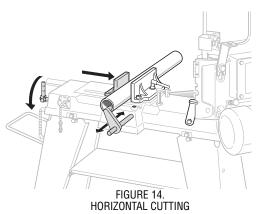
To set up the metal cutting band saw for horizontal cutting, proceed as follows. See Figure 13 and 14. Setting the Band saw for Horizontal Cutting.

- 1. Raise the saw head to the vertical position.
- Open the vise wide enough to accept the workpiece by turning the adjustment wheel at the front end of the saw base counterclockwise.
- Place the workpiece into the vise. If the workpiece is too long or the trailing end wants to drop downward, support it with a stand. The workpiece must be level in the vise for proper cuts.
- 4. If a specific length is to be cut off or if multiple pieces are to be cut the same length, set the stop to the side of the vise and tighten the setscrew.
- FIGURE 13.
 HORIZONTAL CUTTING
- 5. Tighten the workpiece securely in the vise by turning the adjustment wheel at the front end of the saw base clockwise.
- 6. Turn ON the band saw.

A WARNINGDo not attempt to hold the workpiece with hands during cutting operations. This could cause the blade to bind or even break resulting in severe damage to the band saw and possibly severe injuries to the operator.

- 7. Grip handle on front end of saw head and slowly lower the band saw blade into the workpiece. DO NOT DROP the blade against the workpiece. The weight of the saw head will do the cutting.
- 8. The band saw will automatically turn off when the cut is finished.
- 9. The vise can be set to cut any angle from 0 to 45 degrees.

- 10. To set the vise for angled cuts, loosen the two screws on the front vise plate. A gauge mounted on the side of the saw base will line up with the vise plate indicating the angle of cut.
- 11. For precise angle cutting, open the vise all the way and place a protractor or other precise measuring gauge against the vise plate.
- 12. Tighten the two screws when the desired angle is reached.

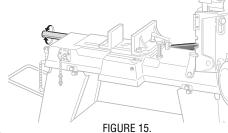


ADJUSTING THE FEED RATE

WARNINGTurn the metal cutting band saw power switch to the OFF position. Disconnect the band saw from the AC power source before make any adjustments or changing blade speed.

The feed rate of the metal cutting band saw controls how the fast the blade is pushed through the workpiece. Excessive feed pressure can bind or break the blade. Insufficient feed pressure can cause the blade to become prematurely dull. Adjust the feed rate of the band saw as follows.

- 1. Turn the control arm located on the motor-side of the saw base counter-clockwise to increase the feed rate.
- 2. Turn the control arm clockwise to decrease the feed rate.
- 3. Do not turn the control arm more than one turn, in either direction, at a time.



ADJUSTING THE FEED RATE

- 4. Place a piece of scrap material in the vise and clamp it securely.
- 5. Allow the band saw to cut the material. Observe the blade pressure and adjust accordingly.

VERTICAL CUTTING

When cutting small pieces or ends that are close to the blade, ALWAYS use a push stick to prevent the hands from accidentally coming in contact with the moving blade. A push stick can be made from a piece of wood that is at least 1" wide and 12" long. A notch should be in the end that contacts the workpiece.

WARNING Using the metal cutting band saw in the vertical position should only be used for cutting light materials, workpieces that are short enough to be guided by hand and for cutting rounded corners on flat workpieces that will not fit in the vise on the saw base. Cutting heavy materials or thick workpieces in the vertical position could result in the blade becoming very hot, binding or even breaking resulting in damage to the band saw, the workpiece and/or possibly severe injuries to the operator.

To set up the metal cutting band saw for vertical cutting, see Page 16 to assemble the vertical cutting table and proceed as follows. See Figure 16.

FIGURE 16.VERTICAL

CUTTING

- 1. When making mitered or angled cuts in the vertical position, slide the miter gauge into the square groove on the right side of the work table. Set the miter gauge for the desired angle of cut.
- 2. Turn ON the band saw.
- 3. Firmly grasp the workpiece and slowly push it into the blade. Let the blade do the cutting. Do not attempt to cut too fast or apply pressure against

se the blade to become hot and harden and possibly

OIL

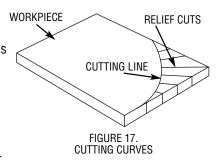
TURN

TO "ON"

- the blade. This could cause the blade to become hot and harden and possibly bind or break.
- 4. After the blade cuts through the side closest to the operator, keep pushing the workpiece forward until it has completely cleared the blade. Pull the two halves away from the work table.
- 5. Turn OFF the band saw.
- 6. Allow the blade to cool before cutting making another cut.

CUTTING CURVES

The blade on the metal cutting band saw does not turn from side-to-side to create scrolling effects. Cutting curved corners is achieved by making relief cuts along the curved path. The relief cuts allow the blade to make the cut without twisting. See Figure 17. If the curved path is so sharp that it is necessary to repeatedly stop and back up, the curve could be cut by increasing the number of relief cuts or



changing to a different blade with more set. The more set a blade has, the easier the workpiece can be turned.

WARNING When withdrawing the workpiece, changing the cut pattern, or for any other reason, use caution and ensure the blade is not drawn off the wheels. In most cases, it is easier to continue cutting straight out through the scrap portion of the workpiece. Should the blade come off one of the wheels, its speed will cause it thrash violently inside the saw head and possibly break. This could cause severe damage to the band saw components and possibly severe injury to the operator.

TROUBLESHOOTING

▲ WARNING

To avoid any accidental starting of the Band saw, turn the switch to the "OFF" position and unplug the tool from the AC power source.

Should the motor fail to run, for any reason, call Alltrade Customer Service.

TROUBLE PROBABLE CAUSE		SOLUTION		
Excessive Blade Breakage	1. Workpiece loose in vise 2. Incorrect feeding speed 3. Blade spacing to far apart 4. Workpiece too coarse 5. Blade tension incorrect 6. Teeth contacting workpiece before saw starts 7. Blade rubbing on wheels 8. Guide bearings out of alignment	 Secure workpiece in vise. Adjust feeding speed. Replace blade with smaller teeth spacing. Use slower blade speed. Adjust blade tension so blade does not slip on wheel. Feed workpiece after band saw starts. Adjust wheel alignment. Adjust guide bearings. 		
Blade Dulls Prematurely	 9. Blade cracking at weld 1. Blade teeth too coarse 2. Speed set too high 3. Feed pressure incorrect 4. Hard spots or scale on workpiece 5. Blade twisting in guides 6. Blade not cutting properly 	 9. Re-weld blade. 1. Change to blade with finer teeth. 2. Lower blade speed. 3. Adjust feed pressure. Allow blade to do cutting of workpiece. 4. Reduce speed; increase feed pressure. 5. Replace blade and adjust blade tension. 6. Increase blade tension. 		
Unusual Wearing on Blade Side or Back	Blade guides worn Blade guide bearings out of adjustment Loose blade guide bearing bracket	 Replace blade guides. Adjust guide bearings. Tighten blade guide bearing bracket. 		
Teeth Breaking Off Blade	Blade teeth too coarse Feed pressure too high - speed too slow Workpiece vibrating in vise Gullets loading	 Change to blade with finer teeth. Slow feed pressure - increase speed. Secure workpiece in vise. Use blade with coarser teeth or brush away excessive chips. 		

TROUBLE	PROBABLE CAUSE	SOLUTION	
	1. Blade tension too high	1. Reduce blade tension.	
	2. Drive belt tension too high	2. Loosen belt tension.	
Motor Running	3. Inadequate gear lubrication	3. Lubricate gears.	
Too Hot	4. Blade binding in work- piece	4. Decrease feed pressure-blade speed.	
	5. Improper gear alignment	5. Call Alltrade Customer Service.	
	1. Feed pressure too high	1. Adjust feed pressure.	
	Guide bearings out of alignment	2. Adjust guide bearings. Maximum .001.	
	3. Wrong blade tension	3. Adjust blade tension.	
	4. Dull Blade	4. Replace blade.	
Cracked Cuts	5. Wrong blade speed	5. Adjust blade speed.	
Ordened Outs	6. Improper blade guide spacing	6. Adjust blade guide spacing.	
	7. Blade guide assembly loose	7. Tighten blade guide assembly.	
	8. Blade tracking too far away from wheel flanges	8. Re-set blade tracking.	
	1. Speed too fast or feed pressure too great	Decrease speed or decrease feed pressure.	
Rough Cuts	2. Blade is too coarse	Replace blade with one with finer teeth.	
	3. Blade tension too loose	3. Adjust blade tension.	
Blade Twisting in	1. Blade is binding in work- piece	1. Decrease feed pressure.	
Guides	2. Blade tension too high	2. Decrease blade tension.	

29 30

MAINTENANCE AND CLEANING

It is important to keep your metal cutting band saw in perfect operating condition.

CLEANING

After every use of the metal cutting band saw, the saw and surrounding area should be cleaned thoroughly to remove any buildup of metal filings. Use an air hose or soft bristled brush to clean the saw components. Sweep around the saw or use a shop vacuum to remove the debris from the floor.

LUBRICATION

Use Lubricant (L-HV32) for the following:

- Ball bearing none
- Blade guide bearing, drive wheel bearing none
- Vise lead screw oil as needed

The drive gears run in an oil bath and should not require lubrication more than once per year. To change the oil in the gear box, refer to and proceed as follows:

- 1. Lower the saw head to the horizontal position.
- 2. Loosen the four screws on the gearbox cover.
- 3. Place a pan under the right lower corner of the gearbox.
- 4. Slowly raise the saw head emptying the used oil into the pan.
- 5. When all of the oil is emptied, lower the saw head back to the horizontal position.
- 6. Fill the gearbox with new lubricant and tighten the four screws.

ACCESSORIES

Contact ALLTRADE Customer Service at 1-800-590-3723 (toll free) to find out what accessories are available for the band saw.

Ular band saw. These accessories should be specifically labeled to match the speed and arbor size of the band saw. Failure to use the proper accessories could result in property damage, damage to the band saw, and serious personal injury to the operator.

Always attach grounded (3-prong) extension cords to grounded (3-hole) outlets. If the band saw must be used outside, use an extension cord labeled "W-A" or "W." These extension cords are rated for outdoor use and reduce the chances of electrical shock.

If you must use an extension cord, be sure that the gauge is large enough to carry the amount of current necessary for your power tool. If not, your tool may experience a loss of power, excessive voltage drop or overheating. The smaller the gauge number, the heavier the cord (see table below).

RECOMMENDED SIZES OF EXTENSION CORDS 120 VOLT AC 60 HZ TOOLS

TOOL CURRENT RATING	C	ONDUCTOR	SIZE IN A.W.	.G
AMPERE	10FT.	25FT.	50FT.	100FT.
3-6	18	18	18	18
6-8	18	18	18	16
8-10	18	18	18	14
10-12	16	16	14	14
12-16	14	12	12	-
16-20	12	12	12	-

SPECIFICATIONS

SPECIFICATIONS	
Voltage	120V \sim 60 Hz
Rated Current	3 A
Maximum Horsepower	1/2 HP
Motor No-Load Speed	1725 RPM
Blade Speed	80/120/180 FPM
Cutting Capacity	4"X6" (Rectangle)
	4 1/2" (Round)
Blade Size	1/2" X 0.025" X 64 1/2"
Table Size	9 3/8" X 9 5/8"
Height	38" (Horizontal Position)
	54 3/4" (Vertical Position)

OTHER CONSUMER DO-IT-YOURSELF (DIY) TOOLS

Alltrade offers a full range of Kawasaki[™] tools that make DIY jobs easy. If you would like further information on the following products, please contact Alltrade Customer Service Department at 1-800-590-3723.

Cordless Drills/Screwdrivers Reciprocating Saws

Impact Wrenches Routers

Sanders Rotary Tools

Jigsaws Corded and Cordless Multi-Purpose Tools

Circular Saws Wide Range of Accessories and more

Angle Grinders

3 YEAR LIMITED WARRANTY

Express and Exclusive Limited Warranty to Original Retail Buyer

Alltrade Tools LLC (hereinafter "Alltrade") expressly warrants to the original retail purchaser of the accompanying KAWASAKI™ power tool and no one else all parts of the product (except those parts referred to below which are specifically excluded from such warranty (see Exclusions)) to be free from defects in materials and workmanship for a period of three years from original date of purchase, except that such warranty with regard to the battery shall be for a period of two years from original date of purchase, unless the tool is used for commercial or rental purposes.

SPECIAL WARRANTY NOTE FOR COMMERCIAL OR RENTAL USE: The above warranty for this Kawasaki™ power tool, including the battery, shall be effective for only 90 days from the original date of purchase if this tool is used for any COMMERCIAL OR RENTAL PURPOSE.

The date of purchase shall be the date of shipment to the original purchaser, or the date the original purchaser took possession, custody or control of the product, whichever occurred first. This warranty shall be null and void if the product or any component thereof is modified or altered. This warranty does not apply to any other product and/or component thereof manufactured or distributed by Alltrade, and does not apply to products and/or components thereof designed, manufactured and/or assembled by others, for which Alltrade makes no warranties whatsoever. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

Warranty Performance

By purchasing the product, purchaser expressly acknowledges and agrees that their sole and exclusive remedy under this warranty shall be strictly limited to the repair or replacement of any covered nonconforming items or parts thereof provided that any such nonconforming item and/or part is promptly returned to Alltrade's facility postage pre-paid and insured (address: ALLTRADE Warranty Claims & Repair. 1431 Via Plata, Long Beach, CA 90810, Attn: Customer Service #1-800-590-3723) within the applicable warranty period, with a written request by purchaser that Alltrade repair and/or replace the nonconforming item and/or part. We recommend that you keep the original product packaging in the event you need to ship the unit. We suggest the package be insured against loss or in transit damage. When sending your product include your name, address, phone number, dated proof of purchase (or copy), and a statement about the nature of problem. Warranty coverage is conditioned upon purchaser furnishing Alltrade with adequate written proof that they are the original purchaser and of the original purchase date. Parts returned, freight prepaid and insured, to Alltrade's facility (see above address) will be inspected and, at Alltrade's option, repaired and/or replaced free of charge if found to be defective and subject to warranty. Alltrade retains the sole discretion to determine whether any item or part is nonconforming and, if so, whether the item and/or part will be repaired and/or replaced. If the unit is repaired, new or reconditioned replacement parts may be used. If Alltrade chooses to replace the product, it may replace it with a new or reconditioned one of the same or comparable design. The repaired or replaced unit will be warranted under the terms of the remainder of the warranty period. Typically, a defective product that is returned within the first 30 days after the purchase date will be replaced; for items returned after the first 30 days and within the warranty period, covered defective parts not subject to normal wear and tear or other exclusions will be repaired or replaced, at Alltrade's option. During the warranty period, Alltrade will be responsible for the return shipping charges. Alltrade's repair and/or replacement of any nonconforming item and/or part thereof shall constitute fulfillment of all obligations to the purchaser. Alltrade shall not be responsible or liable for any expense, including freight charges, or repairs made outside Alltrade's facility, unless expressly agreed to by Alltrade in writing. Under no circumstances shall Alltrade bear any responsibility for loss of the unit, loss of time or rental, inconvenience, commercial loss or consequential damages.

Exclusions

This warranty does not cover parts damaged due to normal wear, abnormal conditions, misapplication, misuse, abuse, accidents, operation at other than recommended pressures or temperatures, improper storage or freight damage. Parts damaged or worn by operation in dusty environments are not warranted. Failure to follow recommended operating and maintenance procedures also voids warranty.

This limited warranty does not apply to accessory items such as drill bits, screwdriving bits, circular saw blades, jigsaw blades, grinding wheels, sanding sheets and other related items.

DAMAGE TO THE PRODUCT RESULTING FROM TAMPERING, ACCIDENT, ABUSE, NEGLIGENCE, FAILURE TO FOLLOW INSTRUCTIONS, UNAUTHORIZED REPAIRS OR ALTERATIONS, DAMAGE WHILE IN TRANSIT TO OUR SERVICE FACILITY, USE OF UNAPPROVED OR IMPROPER ATTACHMENTS OR ACCESSORIES, COMMERCIAL AND RENTAL APPLICATIONS OR OTHER CAUSES UNRELATED TO PROBLEMS WITH MATERIAL OR WORKMANSHIP ARE NOT COVERED BY THIS WARRANTY.

Alltrade will not be liable for the following: labor charges, loss or damage resulting from improper operation, maintenance or repairs made by other persons; pre-delivery services such as assembly, oil or lubricants, and adjustment; maintenance services that are normally required to maintain the product.

The use of other than genuine Alltrade Repair Parts will void warranty.

Warranty Disclaimers

EXCLUSION AND DISCLAIMER OF ALL OTHER EXPRESS WARRANTIES, GUARANTIES AND/OR REPRESENTATIONS. EXCEPT FOR THE LIMITED WARRANTY PROVIDED ABOVE, ALL OTHER EXPRESS WARRANTIES, GUARANTIES AND/OR REPRESENTATIONS BY ALLTRADE AND/OR ITS REPRESENTATIVE(S) REGARDING THE DESIGN, MANUFACTURE, PURCHASE, USE AND/OR OPERATION OF THE PRODUCT OR ANY COMPONENT THEREOF SOLD HEREUNDER, REGARDLESS OF WHETHER ANY SUCH WARRANTY, GUARANTY AND/OR REPRESENTATION, WRITTEN OR ORAL, ARISES BY OPERATION OF LAW AND/OR EQUITY AND/OR BY ANY ACT OR OMISSION OF ALLTRADE AND/OR ITS REPRESENTATIVE(S), OR THE BUYER, ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED BY ALLTRADE AND/OR ITS REPRESENTATIVES. PURCHASER KNOWINGLY AND WILLINGLY WAIVES ANY AND ALL SUCH WARRANTIES AND RIGHTS, CLAIMS AND/OR CAUSES OF ACTION ARISING THEREFROM OR BASED THEREON. PURCHASER'S SOLE AND EXCLUSIVE REMEDY IS AS STATED ABOVE.

EXCLUSION AND DISCLAIMER OF ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY, ORAL OR WRITTEN, OTHER THAN THE ABOVE WARRANTY IS MADE WITH REGARD TO THIS PRODUCT. ALL EXPRESS AND/OR IMPLIED WARRANTIES, GUARANTIES AND/OR REPRESENTATIONS BY ALLTRADE AND/OR ITS REPRESENTATIVE(S) REGARDING THE DESIGN, MANUFACTURE, PURCHASE, USE AND/OR OPERATION OF THE PRODUCT OR ANY COMPONENT THEREOF SOLD HEREUNDER, REGARDLESS OF WHETHER ANY SUCH WARRANTY, GUARANTY AND/OR REPRESENTATION, WRITTEN OR ORAL, ARISES BY OPERATION OF LAW AND/OR EQUITY AND/OR BY ANY ACT OR OMISSION OF

ALLTRADE AND/OR ITS REPRESENTATIVE(S), OR THE PURCHASER, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED BY ALLTRADE AND/OR ITS REPRESENTATIVES. PURCHASER KNOWINGLY AND WILLINGLY WAIVES ANY AND ALL SUCH WARRANTIES AND RIGHTS, CLAIMS AND/OR CAUSES OF ACTION ARISING THEREFROM OR BASED THEREON. PURCHASER'S SOLE AND EXCLUSIVE REMEDY IS AS STATED ABOVE.

Limitation Of Liability

IN NO EVENT SHALL ALLTRADE AND/OR ITS REPRESENTATIVE(S) BE LIABLE FOR INDIRECT, INCIDENTAL, SPECIAL AND/OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING OUT OF OR RELATED TO, DIRECTLY OR INDIRECTLY, ANY BREACH OF ANY PROVISION OF ANY AGREEMENT BETWEEN ALLTRADE AND/OR ITS REPRESENTATIVE(S) AND PURCHASER, ANY WARRANTY HEREUNDER, AND/OR THE EXISTENCE, DESIGN, MANUFACTURE, PURCHASE, USE AND/OR OPERATION OF ANY ITEM(S) SOLD HEREUNDER EVEN IF ALLTRADE AND/OR ITS REPRESENTATIVE(S) HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH DAMAGES. IN NO EVENT, WHETHER AS A RESULT OF A BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, SHALL ALLTRADE'S AND/OR ITS REPRESENTATIVE(S)' LIABILITY EXCEED THE PRICE OF THE PRODUCT. ANY AND ALL LIABILITY CONNECTED WITH THE USE OF THIS PRODUCT SHALL TERMINATE UPON THE EXPIRATION OF THE WARRANTY PERIODS SPECIFIED ABOVE.

Limitations on Warranty Disclaimers

Some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusion or limitation of the incidental or consequential damages, so part or all of the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If your product is not covered by this warranty, please call our Customer Service Department toll free at 1-800-590-3723 for general repair information and charges.